51. (New) The method according to claim 49, wherein:

the method includes polishing the surface of the semiconductor wafer on a member that moves relatively to the semiconductor wafer; and

the polishing in the presence of a solid powder oxidizing agent further includes performing the polishing while the solid powder oxidizing agent is located on the member.

52. (New) The method according to claim 49, wherein the method includes dispersing the solid powder in a liquid that is dropped onto the surface of the semiconductor wafer.

53. (New) The method according to claim 44, wherein the method includes supplying a solid powder made of a material other than chromium (III) oxide to the surface of the semiconductor wafer when the surface is polished for catalyzing a chemical reaction.

54. (New) The method according to claim 53, wherein the method includes dispersing the solid powder in a liquid and dropping the liquid and the powder on the surface of the semiconductor wafer.

55. (New) The method according to claim 53, wherein the method includes locating the solid powder on a member that is moved relatively to and contacts the surface of the semiconductor wafer when the surface is polished.

56. (New) The method according to claim 53, wherein the supplying a solid powder made of a material other than chromium (III) oxide to the surface of the semiconductor wafer

when the surface is polished for catalyzing a chemical reaction further comprises supplying a solid powder that contains at least one of titanium dioxide, cadmium sulfide, and diindium trioxide.

57. (New) The method according to claim 53, wherein the method includes irradiating the solid powder with light when the surface of the semiconductor wafer is polished.

58. (New) The method according to claim 44, wherein the method includes heating the surface of the semiconductor wafer during the polishing.

59. (New) The method according to claim 44, wherein the polishing a surface of a semiconductor wafer by mechanochemical polishing using the abrasive grains further comprises polishing a surface of a silicon carbide semiconductor wafer using the abrasive grains.

60. (New) The method according to claim 44, wherein the polishing a surface of a semiconductor wafer by mechanochemical polishing using the abrasive grains further comprises polishing the surface of the semiconductor wafer with a processing pressure in a range of 0.0098 to 0.294 MPa (0.1 to 3.0 Kgf/cm^2).

61. (New) A mechanochemical polishing apparatus, comprising:

a table on which a semiconductor wafer is held;

a member facing the holding table and movable relatively with respect to the semiconductor wafer to polish a surface of the semiconductor wafer using abrasive grains made of chromium (III) oxide; and

oxidizing agent supply means for supplying hydrogen peroxide water to the surface of the semiconductor.

62. (New) The apparatus according to claim 61, wherein said oxidizing agent supply means is an injector located above the member for supplying the hydrogen peroxide water to the surface of the semiconductor.

63. (New) The apparatus according to claim 61, further comprising heating means for heating the surface of the semiconductor wafer when the surface is polished.

64. (New) The apparatus according to claim 61, further comprising an injector for supplying a liquid to the surface of the semiconductor wafer, the liquid including a solid powder made of a material other than chromium (III) oxide, for catalyzing a chemical reaction.

65. (New) The apparatus according to claim 61, further comprising a light source for irradiating the solid powder with light.

66. (New) The apparatus according to claim 61, wherein a polishing cloth is located on a surface of the member for polishing the surface of the semiconductor wafer.

67. (New) The apparatus according to claim 66, wherein the polishing cloth is made of one selected from a group consisting of synthetic fibers, glass fibers, natural fibers, synthetic resin and natural resin.

68. (New) The apparatus according to claim 66, wherein the polishing cloth includes an unwoven type polishing cloth in which complex fabric bodies are impregnated with resin serving as a binding material between fibers or in which a resin layer has a continuously foamed structure.

69. (New) The apparatus according to claim 66, wherein the polishing cloth is made of formed polyurethane.

70. (New) A method of manufacturing a semiconductor substrate comprising:

scrubbing a surface of the substrate with an abrasive that includes superfine grains of diamond; and

polishing the surface using abrasive grains of chromium (III) oxide in the presence of hydrogen peroxide water to supply oxygen to the surface of the substrate.

71. (New) The method of claim 70, wherein the scrubbing includes scrubbing with diamond grains that have a particle size finer than #8000.

72. (New) The method of claim 70, further comprising pressing the surface of the substrate at a pressure of 0.6 kgf/cm^2.

increasing oxygen concentration on the surface of the wafer to promote the formation of an oxide by performing the polishing in the presence of hydrogen peroxide water.

45. (New) The method according to claim 44, wherein the method includes:

coating a polishing cloth with the abrasive grains; and

depositing the hydrogen peroxide on the cloth.

46. (New) The method according to claim 45, wherein the method further includes coating the cloth with grains of manganese dioxide.

47. (New) The method according to claim 44, wherein the method further includes coating the cloth with grains of manganese dioxide.

48. (New) The method according to claim 44, wherein the method includes dropping the oxidizing chemical agent onto the surface of the semiconductor wafer.

49. (New) The method according to claim 44, wherein the method includes performing the polishing in the presence of a solid powder oxidizing agent.

50. (New) The method according to claim 49, wherein the performing the polishing in the presence of a solid powder oxidizing agent further includes performing the polishing in the presence of at least one of manganese dioxide and dimanganese trioxide.

73. (New) The method of claim 70, wherein the polishing the surface using abrasive grains of chromium (III) oxide in the presence of hydrogen peroxide water to supply oxygen to the surface of the substrate further comprises polishing the surface using abrasive grains of chromium (III) oxide with a grain size of 0.5 μm and at a concentration of 10% by weight.